tion cows' milk is given the symptoms reappear. In investigating the cause of this action of cows' milk Finkelstein has been able to establish the fact that casein, butter fat, sugar of milk, and even human milk, when added to cereals, are without action on the tetany. On the contrary, the serum of cows' milk acts exactly in the same fashion as whole milk—whence he has concluded that tetany is determined by a disturbance in the nutritive processes depending probably upon the assimilation of the phosphates or the calcium salts. This point has been made the subject of Stolzner's study of the galvanic excitability of the peripheral nerves in infants affected with tetany, before and after the administration of cows' milk or the calcium salts.

While the 12 cases reported by the author are not equally significant it seems conclusive that the administration of cows' milk or the calcium salts caused a manifest exaggeration of the excitability of the peripheral nerves, while this effect was wanting when, as a control, these infants received phosphate of sodium, lactate of iron, acetate of potassium, chloride of sodium, or magnesia.

The mechanism of this action of the calcium salts in producing or exaggerating the symptoms of tetany is thus explained by Stoelzner:

Tetany is exceptional with the breast-fed infant, but is almost always observed with infants nourished by cows' milk, which contains five times more calcium than human milk. The absorption and elimination of calcium salts being effected by the intestinal mucosa, it is evident that this organ is subjected to a superalimentation, which is aggravated if there are digestive disturbances, or if there is rachitis, in which the bones imperfectly utilize the calcium absorbed. It may, therefore, result with infants nourished with cows' milk, whether or not they become dyspeptic or rachitic, that the intestine can become functionally insufficient in eliminating the calcium salts and thus lead to a retention manifesting itself clinically by tetany. It remains to be proved whether in such cases the blood and organs are surcharged with calcium salts, a point upon which so far no researches have been made.

A Vegetable Broth Useful in Gastro-enteritis.—BAILEY (*Gaz. hebd. des Sci. méd.*, June 2, 1906) gives a recipe for a broth which may be used with advantage when it is necessary to interdict milk as a food in case of milk infection: Carrots, 65 grams; potatoes, 5 grams; turnips, 25 grams; dry peas or dry haricot beans, 25 grams, for each liter of water. Cook well and strain, adding 5 grams of salt per liter.

The Alimentary Regimen of Measles.—E. RAMUS (*Régime alimentaire à instituer dans la rougeole, Thèse de Paris*, 1906) makes some valuable suggestions as to diet of children suffering from measles, based upon a study of urinary elimination and the weight. Dividing the duration of the disease into periods of four days each, counting from the day of eruption, Ramus has observed that the quantity of urine passes through three phases: First, a phase of oliguria corresponding to the first period of the disease; a second phase of polyuria coincident with the second period; and a third, covering the last two periods, in which the quantity increases, diminishes, or remains stationary. This curve, which is more or less accentuated according to the gravity of the disease, is independent of the regimen adopted.

The elimination of urea shows notable modifications during the course of the disease. In the first period it is low; in the second it increases progressively, attaining a maximum from the ninth to twelfth day, after which it reverts to the normal. The administration of an albuminoid diet does not appear to increase the proportion of urea during the first period; it does augment urea elimination, however, during the subsequent periods; but it is impossible to establish an absolute parallelism between the curves of urea, the urine, and the course of the temperature.

The elimination of chlorides is not influenced by measles, and neither retention nor crisis is observed, as exists in other infectious diseases: the elimination is equal to the ingestion. No connection can be established between the excretion of chlorides, on the one hand, and that of urea, on the other.

The weight of the body in the course of measles undergoes a more or less considerable decline from the beginning of the incubation. In the following periods it remains stationary, to increase again without always attaining the original figure before complete recovery.

The chlorides seem to have a manifest influence upon the weight; if ingested from the beginning of the disease they retard the loss of weight, often so considerable during the first period. This attenuation cannot be attributed to fixation of water in the organism, since there is no retention of chlorides during the course of the disease. The role of the chlorides seems to be a biological one, consisting in a favorable modification of the phenomena of cellular nutrition.

The alimentary regimen proposed by Ramus is as follows: In the first four days of the disease it is useless to give albuminoid foods, since the child does not eliminate more urea under milk feeding than under barley-water. Give therefore water in the form of warm infusion of potherbs or mallow, barley-water or hot lemonade. To prevent too great a loss of weight, add to this a certain amount of sodium chloride, a little greater than that which would be taken in milk, about 5 grams for a child of from four to ten years. In the second period, after the fall of temperature, albuminoid foods may be resumed, since there is a sensible diminution of urea in children who do not receive albumin. Therefore, according to the appetite of the child and the condition of the alimentary tract, without recourse to an intermediate diet of milk exclusively, one can order without danger a diet suitable to the age of the child: broths, eggs, meat-juice, rice, butter, etc., watching always the condition of the stools, and reducing the diet if diarrhœa appears. In this way many of the complications resulting from the pronounced exhaustion of the disease may be avoided.

OBSTETRICS.

UNDER THE CHARGE OF

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Eclampsia.—Esch (*Ztschr. f. Geb. u. Gyn.*, 1906, lviii, Heft 1) contributes a paper upon this subject from studies made in Olshausen's clinic in Berlin. Between the years 1900 and 1905, in 6657 cases of labor, eclampsia occurred in 7.45 per cent. This is a high rate for continental clinics, the nearest approach to this in Germany being that of the Leipsig clinic, with 2.07 per cent. Of these, 78.3 per cent. were primiparæ, 21.7 multiparæ. Among the primiparæ were 14.8 per cent. older than 28. Nine of these patients had eclampsia in a previous pregnancy or parturition. Cases are on record in which the mother has had eclampsia in three successive pregnancies. Esch reports 3 patients who had eclampsia comparatively early in pregnancy, from which they recovered and subsequently had eclampsia at the time of the birth of the child. He adds also 9 other cases in which eclampsia occurred without the interruption of pregnancy, which subsequently went on to term. Among the symptoms of threatened eclampsia, the most significant was headache. Pain in the stomach and vomiting occurred just before or during convulsions. Disturbance of the special senses, especially sight, was frequently observed. An aura was not detected. The results of Esch's studies, with those of Olshausen and others, show clearly that eclampsia may occur after labor. The percentages are: Esch, 15.7 per cent.; Olshausen, 14 per cent.; Goedecke, 18.2 per cent.; Knapp, 14.6 per cent.; Goldberg, 16.88 per cent.; Winckel, 17 per cent.; Löhlein, 23 per cent.; Braun, 24 per cent.; Schauta, 24.6 per cent.; Büttner, 32 per cent.; Wirz, 19.7 per cent.; Hammerschlag, 19 per cent.; and Bidder, 29 per cent.

Eclampsia may develop as late as two days after labor. In one case reported by Esch, convulsions occurred nine days after the birth of the child. The longest interval reported between childbirth and eclamptic convulsions is eight weeks.

On admission, most of these patients were comatose, with labored respiration, rapid pulse, frequently with high tension, sometimes small and irregular. The patients were exceedingly restless and more or less unconscious. A moderate degree of fever was often present. Œdema was observed in the majority of cases in some portion of the body. In a considerable portion of cases the urine showed serum albumin. The specific gravity varied from 1010 to 1018, the urine was more highly colored than normal, and occasionally dark or reddish brown. The quantity was lessened. As a rule, immediately after labor the quantity increased or the albumin lessened. Debris from the kidneys was present in a large percentage of cases.

The convulsions were characteristic of eclampsia or epilepsy, and lasted from three-quarters of a minute to two or three minutes. The longest duration was twenty-two minutes. The number of convulsions